

**P-9 (79)****AN INVESTIGATION ON THE EFFECT OF PISTACIA ATLANTICA WATEREXTRACT ON SEED GERMINATION AND SEEDLING GROWTH OF THREE COMMON WEEDS IN FARS PROVINCE, IRAN**

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Nowadays different advantages of medicinal plants are known in different branches of science and their usage in agriculture is one of them. Allelopathy phenomenon is most applied advantage of them to control weeds. As weeds are one of the most reasons which reduce the yield of agriculture productions and make farmers use harmful herbicides. So a research has been done to evaluate the effect of water extract of *Pistacia atlantica* as one offars province native medicinal plants on seed germination and seedling growth of three kinds of common weeds in this geographical part. It was a RCD factorial experiment with 3 replications and 2 treatments conducted in IAU, Jahrom branch. The first treatment was water extract of *Pistacia atlantica* in 4 levels including 0%, 5%, 10%, and 15%. The second factor was weeds including *Amaranthus retroflexus*, *Chenopodium album*, and *Physalis alkekengi*. Germination percentage, average germination period, germination rate, hypocotyl length, radicle length, seedling length, and wet weight were studied. The results indicated that the extract had a significant effect on reducing germination percentage and seedling growth of these three plants. Accordingly, *Chenopodium album*, and *Physalis alkekengi* didn't have any germination. Therefore, it can be said that this kind of medicinal plant extract probably might be used in formulation of green herbicides to avoid dangerous side effects of common herbicides for environment and biosphere. It is obvious that complementary studies are needed to prove these results for being applied.

**Keywords:** Allelopathy, weeds control, medicinal plant, green herbicide